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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,216	07/11/2003	John A. Pasko	TEC1238-01	4237

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EXAMINER
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DRODGE, JOSEPH W

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/618,216

**Applicant(s)**

PASKO, JOHN A.

**Examiner**

Joseph W. Drodge

**Art Unit**

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,16,18,22-24 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Steen et al PG PUBS document US2001/0024165.

Steen et al document '165 disclose battery power source to sensor module and processor (paragraph 6), wireless communication device having processor, software, ability to receive and send/ event messages (paragraphs 6,22,26 and 51), processing system to produce and route messages (paragraphs 23,27,44 etc.), and detector or probe modules to monitor liquid levels such as in manholes (paragraphs 24 and 56).

Regarding claims 17 and 18, 22-24 and 27, timers and other means are utilized for periodically powering up individual sensor modules (paragraphs 35-45).

Regarding claims 25 and 26, the system includes self testing of functioning of the sensor modules (paragraphs 51 and 53).

Paragraph 22 concerns various cellular networks including GSM systems.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2,4-13 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steen et al document '165 in view of Tullis patent 3,781,624 and Farr patent 5,238,369, of record. Claims 2-13 and 19-21 differ from Steen et al in requiring the sensor module to include a capacitive probe, although Steen '165 does further disclose a capacitive sensing circuit (paragraph 56). Tullis teaches that such capacitive probe for sensing liquid levels in environments similar to manholes is known (column 2, lines 5-19, column 5, lines 19-37, while Farr teaches that capacitive detectors are

advantageous in determinations of liquid levels in sumps and water tanks subject to wide variations in water levels. It would have been obvious to one of ordinary skill in the art to have utilized capacitive level sensing elements, as suggested by Farr '369 and Tullis, in order to provide an accurate record of rapidly and widely varying water levels without damage to the detector elements.

Regarding claims 6,7,8 and 20, Tullis in column 6, lines 10-48 teaches to mount a level sensor to the mounting ring of a manhole, while Steen et al discloses mounting of level sensors to manhole covers, with their extending downwardly therefrom.

Regarding claims 9 and 22, Steen et al also disclose various types of antenna transmission components and relaying of event messages over cellular communication systems or to the Internet.

Claims 3 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steen et al document '165 in view of Tullis and Farr, as applied to claim 2 above, and further in view of Heger patent 6,568,264. Claims 3 and 21 further differ in requiring the sensor to comprise dielectric insulation. Such electrical insulation or dielectric insulation or cover is taught by Heger at column 1, lines 45-55. It would have been further obvious to have utilized such dielectric insulation to protect the electrodes or metallic parts of the detector from corrosion or other damage due to periodic immersion.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steen et al document '165 in view of Steen et al patent 6,510,350. Claim 14 further differs in requiring the wireless device to comprise a GPS locator, although similar, related

transmissions are mentioned in paragraph 22 of '165. The patent teaches such GPS system in column 10, lines 49-67. It would have been obvious to one of ordinary skill in the art to have utilized the GPS system of Steen patent '350 in the Steen '165 communications system, to precisely display locations of sensor data and faulty sensors to field units receiving sensor information.

Claims 17 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steen et al in view of Wyatt et al patent 6,499,961. Claim 17 also requires the device to include a low power standby state, a feature taught by Wyatt at column 4, lines 10-11. It would have been obvious to have utilized such low power stand-by state to enable faster transitions of the sensor modules into active mode from inactive modes.

Claim 27 needs the circuit being capable of disconnecting power from the communication device upon detecting a low liquid level. Wyatt suggests such feature at column 4, lines 24-48. It would have also been an obvious expedient to have utilized such power disconnecting feature of Wyatt to enable servicing of the sensor module and communications device in the event the low liquid level signals are a result of sensor module failure.

Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steen et al in view of Bennett et al patent 6,229,448. Claims 25 & 26 also need the sensor being capable of detecting a low battery to activate the communications device or otherwise initiate a built-in test of the sensor module. Bennett teaches such features at column 4, lines 34-38. It would have also been an obvious expedient to

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have incorporated such low battery and self-testing features of Bennett, to enable timely replacement of components of the sensor module or communications device that have failed.

Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Drodge at telephone number 571-272-1140. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached at 571-272-1151. The fax phone number for the examining group where this application is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR, and through Private PAIR only for unpublished applications. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JWD

October 11, 2006

  
JOSEPH DRODGE  
PRIMARY EXAMINER